



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.:38005-0147

Applicant: KOSTENIS et al.

Confirmation No.:5658

Appl. No.: 09/842,316

Examiner: Unassigned

Filing Date: April 26, 2001

Art Unit: Unassigned

Title: EDG8 Receptor, Its Preparation and Use

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56 and 37 CFR §1.97**

Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith on Form PTO/SB/08A is a listing of documents known to applicants in order to comply with applicants' duty of disclosure pursuant to 37 C.F.R. §1.56 and §1.97. A copy of each of the listed documents are being submitted to comply with the provisions of 37 C.F.R. §1.97-1.99.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or is considered to be material to patentability as defined in 37 C.F.R. §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* prior art reference against the claims of the present application.

TIMING/FEE

The instant Information Disclosure Statement is being filed in compliance with 37 CFR §1.97(b) prior to the mailing date of the first official action, therefore, no fee is required in connection with its filing. However, the Commissioner is hereby authorized to charge any deficiency or to credit any overpayment to Deposit Account No. 08-1641.

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Applicants respectfully request that the listed documents be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08A be returned in accordance with M.P.E.P. §609.

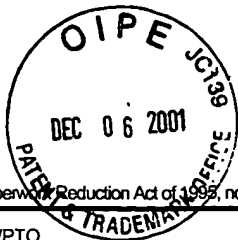
Respectfully submitted,

Date: December 5, 2001

By Patricia D. Granados

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Sheet 1 of 8

Complete if Known

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B1	AN et al.; Characterization of a Novel Subtype of Human G Protein-coupled Receptor for Lysophosphatidic Acid; The Journal of Biological Chemistry; vol. 273, No. 14, Issue of April 3, pp. 7906-7910, 1998	
	B2	AN et al.; Sphingosine 1-Phosphate-induced Cell Proliferation, Survival, and Related Signaling Events Mediated by G Protein-coupled Receptors Edg3 and Edg5; The Journal of Biological Chemistry; vol. 275, No. 1, Issue of January 7, pp. 288-296, 2000	
	B3	AN et al., Transduction of Intracellular Calcium Signals through G Protein-Mediated Activation of Phospholipase C by Recombinant Sphingosine 1-Phosphate Receptors; The American Society for Pharmacology and Experimental Therapeutics; pp 787-794; (1999)	
	B4	ANCELLIN et al., Differential Pharmacological Properties and Signal Transduction of the Sphingosine 1-Phosphate Receptors EDG-1, EDG-3, and EDG-5 vol. 274, No. 27, Issue of July 2, pp. 18997-19002, (1999)	
	B5	OKANO et al., Myelin Basic Protein Gene and the Function of Antisense RNA in Its Repression in Myelin-Deficient Mutant Mouse; Journal of Neurochemistry; Vol. 56, No. 2, 1999 pp. 560-567	
	B6	BARBAS III et al., Combinatorial Immunoglobulin Libraries on the Surface of Phage (Phabs): Rapid Selection of Antigen-Specific Fabs; Methods A Companion to Methods in Enzymology, vol. 2, no. 2, April, pp 119-124, (1991)	
	B7	BITTER et al., Expression and Secretion Vectors for Yeast; Methods in Enzymology, vol. 153, pp 516-544	
	B8	BUNEMANN et al., A Novel Membrane Receptor with High Affinity for Lysosphingomyelin and Sphingosine 1-phosphate in Atrial Myocytes; The EMBO Journal vol. 15, no. 20 pp 5527-5534, 1996	
	B9	CARTER et al./ Humanization of an Anti-p185...; Proc. Natl. Acad. Sci USA; vol. 89, pp 4285-4289, May 1992	
	B10	CHAO et al.; Sphingosine-mediated Phosphatidylinositol... The Journal of Biological Chemistry, vol. 269, No. 8, February 25, 1994; pp 5849-5856	
	B11	COONEY et al.; Site Specific Oligonucleotide Binding... Science, vol. 241; pp 456-459	

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	B12	CORPET, Multiple Sequence Alignment...; Nucleic Acids Research; Vol. 16, 1988; pgs. 10881-10890	
	B13	COTTON; Reactivity of Cytosine...; Proc. Natl. Acad. Sci., Vol. 85, pp. 4397-4401; 6/1988	
	B14	DERVAN et al.; Second Structural Motif ...; Science, Vol 251; pgs 13601363; 1991	
	B15	DURIEUX et al./ Responses to Sphingosine-1...; Amer. Physio. Society; pgs 1360-1364	
	B16	GHOSH et al., Sphingosine 1-Phosphate...; Journal of Biological Chemistry; vol. 269, No. 36, 9/1994; pp. 22628-22635	
	B17	GLICKMAN et al.; Molecular Cloning...; Molecular and Cellular Neuroscience 14, pgs. 141-152 (1999)	
	B18	GOHLA et al.; Differential Involvement of...; The Journal of Biological Chemistry; Vol. 274, No. 25, 6/18 1999; pp. 17901-17907	
	B19	GONDA; The Novel Sphingosine...; Biochem J. (1999) 337, 67-75	
	B20	GREEN et al., Antigen-Specific Human Monoclonal...; Nature Genetics, vol. 7, 5/1994; pps 13-21	
	B21	GUEGUEN et al.; Structure -Activity Analysis...; Biochemistry 199, 38, 8440-8450	
	B22	HISANO et al., Induction and Suppression...; Blood, Vol 93, No. 12; June 15, 1999; pp 4293-4299	

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	B23	Nordstrom et al.; Translational Control By Antisense...; Gene, 72 (1988) 237-240	
	B24	HIGGINS et al., Fast and Sensitive Multiple...; Cabios Communications; vol. 5, no. 2, 1989 pp 151-153	
	B25	HLA et al., Sphingosine-1...; Biochemical-Pharm; vol. 58, pp. 201-207; 1999	
	B26	HLA et al.; An Abundant Transcript...; Journal of Biological Chemistry; vol. 265, No. 16; 1990; pp. 9308-9313	
	B27	HUANG et al., Parallelization of Local...; Cabios; vol. 8, no. 2, 1992, pgs 155-165	
	B28	IM et al., Molecular Cloning and...; Computer Applications in the Biosciences; 8:1-06 (1992)	
	B29	JALINK et al.; Lysophosphatidic Acid...; Biochem Biophys. Acta 1198:185 (1994)	
	B30	JALINK et al., Biochem Biophysica Acta; 1198 (1994) 185-196	
	B31	JONES et al., Replacing the Complementarity...; Nature Vol. 321; 5/1986; pgs. 522-525	
	B32	KON et al., Journal of Biological Chemistry; Vol. 274, No. 34, 8/1999; pp. 23940-23947	
	B33	KOHLER et al.; Continuous Cultures...; Nature Vol. 256, August 1975; pgs 495-497	

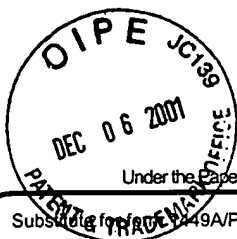
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	B34	KOSTENIS et al., The N-Terminal Extension; The Journal of Biological Chemistry; vol. 272, No. 31, 1997; pp. 19107-19111	
	B35	LEE et al., Complexes Formed By...; Nucleic Acids Research; vol. 6, no. 9; 1979; pgs 3073-3091	
	B36	LEE et al., The Inducible G Protein...; Journal of Biological, vol. 271, No. 19; May 1996; pp. 11272-11279	
	B37	LEE et al., Sphingosine-1-Phosphate...; Science, Vol. 279; March 1998; pp 1552-1555	
	B38	LEE et al., Lysophosphatidic Acid...; Journal of Biological Chemistry; vol. 273, no. 34, 8/1998, pp. 22105-22112	
	B39	LEE et al., Vascular Endothelial...; Cell, Vol. 99, 301-312, October 1999	
	B40	LONBERG et al., Antigen-Specific Human...; Nature, vol. 368, April 1994, pgs 856-859	
	B41	LOSMAN et al., Baboon Anti-Idiotypic Antibodies...; Int. J. Cancer, 46, pgs 310-314, 1990	
	B42	LYNCH et al., Life On The edge...; Elsevier Science Ltd., 1999, vol. 20; pgs. 473-475	
	B43	MATTIE et al., Sphingosine-1-Phosphate...; Journal of Biological Chemistry; vol. 269, No. 5, February 1994; pp. 3181-3188	
	B44	HERINGDORF et al., Calcium Signalling...; Naunyn-Schmiedeberg's Arch Pharmacol (1996) pp. 397-403	

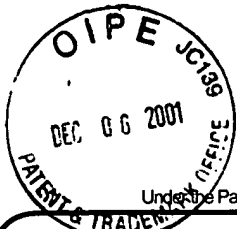
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	B45	MOOLENAAR et al., Lysophosphatidic Acid...; Current Opinion in Cell Biol 9: pp. 168-173 (1997)	
	B46	MORRIS; One Wheel On My Wagon...; Trends Pharmacol Science 20; pp. 393-395, (1999)	
	B47	MYERS et al., Detection of Single Base...; Science, vol. 230; pp. 1242-1246, (1985)	
	B48	NEEDLEMAN et al., A General Method Applicable...; J. Mol Biol. (1970) 48, pp 443-353	
	B49	NOH et al., Different Signaling Pathway...; Journal of Cellular Physiology 176; (1999) pp. 412-423	
	B50	OKAJIMA et al., Involvement of Pertussis...; J. Biol Chem 273; (1998) pp 260-264	
	B51	OKAMOTO et al., EDG1 Is a Functional...; Journal of Biological Chemistry; vol. 273, No. 42, pp. 27104-27110, (1998)	
	B52	ORLANDI et al., Cloning Immunoglobulin...; Proc. Natl. Acad. Scie, vol. 86, pp. 3833-3837, May 1989	
	B53	PEARSON; Using the FASTA Program...; Methods in Molecular Biology 24; pp. 306-331 (1994)	
	B54	PEARSON et al., Improved Tools for...; Proc. Natl. Acad. Sci., vol. 85, pp. 2444-2448, April 1988	
	B55	POSTMA et al., Sphingosine-1-...; The EMBO Journal; vol. 15 no. 10 pp. 2388-2395, 1996	

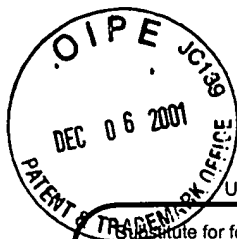
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	B56	PYNE et al., Sphingosine 1-phosphate; Biochem J. (2000) 349, 385-402	
	B57	SADAHIRA et al., Sphingosine 1-phosphate...; Proc. Natl. Acad. Sci. vol. 89, pp. 9686-9690, October 1992	
	B58	RIZZA et al., Lysophosphatidic Acid...; Laboratory Investigation, vol. 79, no. 10, pp. 1227-1233, 1999	
	B59	SAIKI et al., Analysis of Enzymatically...; Nature vol. 324, 1986, pp. 163-166	
	B60	SCHULZE et al., Lysophosphatidic Acid Increases...; Journal of Neurochemistry; vol. 68, No. 3, 1997, pp. 992-1000	
	B61	SIESS et al., Lysophosphatidic Acid... Proc. Natl. Acad. Sci., vol. 96, pp. 6931-6936, 1999	
	B62	SMITH et al., Comparison of Biosequences; Advances In Applied Mathematics 2, pp. 482-489; (1981)	
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	B64	TOKUMURA et al., Vasopressor Effect of...; Research Communications in Molecular Pathology and Pharmacology; vol. 90, No. 1, October 1995	
	B65	TORNQUIST et al., Sphingosine 1-Phosphate ...; Endocrinology, vol. 138, No. 10, pp. 4049-4057	
	B66	VAN BROCKLYN et al., Sphingosine-1-phosphate...; Blood, vol. 95, No. 8, (April 2000)	

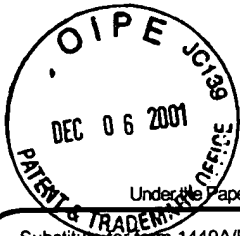
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	B68	XIA et al., Activation of Sphingosine Kinase...; The Journal of Biological Chemistry; vol. 274, no. 48, November 1999; pp. 34499-34505	
	B69	YAMAZAKI et al., Egg-6 as a Putative... Biochemical and Biophysical Research Communications 268, pp. 583-589 (2000)	
	B70	YATOMI et al., Sphingosine 1-Phosphate...; J. Biochem, 121, pp. 969-973 (1997)	
	B71	YATOMI et al., Sphingosine 1-Phosphate...; J. Biochem, vol. 272, No. 8, pp. 5291-5297, 1997	

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